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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
10/21/98	10/21/98	JOHN D. COOPER	10/21/98

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EXAMINER	
J. E. M.	
ART UNIT	PAPER NUMBER

DATE MAILED:

10/21/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. <u>09/653,040</u> Applicant(s) <u>KUDO</u> Examiner <u>MICHAEL G. LEE</u> Group Art Unit <u>2876</u>
<i>—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—</i>	
Period for Reply	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.	
<p>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</p> <p>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</p> <p>- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.</p> <p>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</p>	
Status	
<p><input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>2/18/2000</u></p> <p><input type="checkbox"/> This action is FINAL.</p> <p><input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11; 453 O.G. 213.</p>	
Disposition of Claims	
<p><input checked="" type="checkbox"/> Claim(s) <u>1 - 20</u> is/are pending in the application.</p>	
<p><input type="checkbox"/> Of the above claim(s) _____ is/are withdrawn from consideration.</p>	
<p><input type="checkbox"/> Claim(s) _____ is/are allowed.</p>	
<p><input checked="" type="checkbox"/> Claim(s) <u>1 - 20</u> is/are rejected.</p>	
<p><input type="checkbox"/> Claim(s) _____ is/are objected to.</p>	
<p><input type="checkbox"/> Claim(s) _____ are subject to restriction or election requirement.</p>	
Application Papers	
<p><input type="checkbox"/> See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.</p>	
<p><input type="checkbox"/> The proposed drawing correction, filed on _____ is <input checked="" type="checkbox"/> approved <input type="checkbox"/> disapproved.</p>	
<p><input type="checkbox"/> The drawing(s) filed on _____ is/are objected to by the Examiner.</p>	
<p><input type="checkbox"/> The specification is objected to by the Examiner.</p>	
<p><input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>	
Priority under 35 U.S.C. § 119 (a)-(d)	
<p><input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).</p>	
<p><input type="checkbox"/> All <input checked="" type="checkbox"/> Some* <input type="checkbox"/> None of the CERTIFIED copies of the priority documents have been received.</p>	
<p><input type="checkbox"/> received in Application No. (Series Code/Serial Number) _____.</p>	
<p><input type="checkbox"/> received in this national stage application from the International Bureau (PCT Rule 17.2(a)).</p>	
<p>*Certified copies not received: _____.</p>	
Attachment(s)	
<p><input type="checkbox"/> Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ <input type="checkbox"/> Interview Summary, PTO-413</p>	
<p><input type="checkbox"/> Notice of Reference(s) Cited, PTO-892 <input type="checkbox"/> Notice of Informal Patent Application, PTO-152</p>	
<p><input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review, PTO-948 <input type="checkbox"/> Other _____</p>	
Office Action Summary	

Part III DETAILED ACTION***Prelim. Amdt./Amendment***

1 1. Receipt is acknowledged of the Amendment filed 18 February 2000.

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Claim Rejections - 35 USC § 103

5 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
6 rejections set forth in this Office action:

7 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
8 section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
9 such that the subject matter as a whole would have been obvious at the time the invention was made to a person
10 having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the
11 manner in which the invention was made.

12 3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merlin et al
13 (EP 0-589-732-A1) in view of Shamir (US 5,118,369, of the record).

14 Merlin et al teaches a semiconductor device 1 having some mark patterns thereon 20 for
15 information management provided at each of chips arrayed on a wafer surface [11, 12, 13] as chip
16 ID information wherein the chip ID information includes chip information inherent to each chip
17 (see the English abstract; and the figures).

18 Re claims 1, 4, 7, 11, 14, and 16: Inasmuch as Merlin et al teaches of marking the wafer
19 surface with one or more indicia, he is silent with respect to the ID information to be in a two-
20 dimensional barcode pattern.

21 Shamir teaches an IC wafer including a micro-barcode indicia 128 and an alphanumeric
22 indicia 130 for identification and for inventory purposes (see fig. 9A; and col. 11, lines 53+).

1 It would have been obvious to one of ordinary skill in the art at the time the invention was made
2 to employ the notoriously old and well known micro-barcode pattern(s) as taught by Shamir in
3 addition to the indicia as taught by Merlin et al in order to record more data/information on the
4 wafer surface for better inventory purposes (see col. 11, lines 55+ of Dnamir). Accordingly, such
5 modification would have been obvious extension for recording more data on the wafer surface as
6 taught by Merlin et al as modified by Shamir, and therefore an obvious expedient. Moreover, to
7 substitute the one-dimensional micro-barcode with a two-dimensional micro-barcode would have
8 simply been considered a mere duplication of elements as taught by Merlin et al as modified by
9 Shamir, and therefore an obvious expedient.

10 Re claims 3 and 13: One of ordinary skill in the art at the time the invention was made to
11 employ the conventional means for “chip ID information is projected and exposed using a liquid
12 crystal mask that is capable of changing a light transmitting pattern for each exposure” to the
13 teachings of Merlin et al/Shamir in order to provide Merlin et al/Shamir with a more secure
14 system/device wherein the ID information cannot be detected by a naked eye. Furthermore, to
15 record ID information as discussed above would have been an alternative means for recording
16 data/information on or onto the wafer surface, and therefore an obvious expedient as taught by
17 Merlin et al/Shamir.

18 Re claims 4, 7, 14, and 16: Although, Merlin et al as modified by Shamir teaches the
19 means for encoding the ID information on the wafer surface of the semiconductor device, Merlin
20 et al/Shamir is silent with respect to means for providing ID information on a lead frame and/or
21 outer surface of a resin-sealed semiconductor chip. However, one of ordinary skill in the art at
22 the time the invention was made would have contemplated in placing/recording the ID
23 information on a semiconductor device on each chip, either on the chip itself, on a lead frame.

1 outer surface of resin-seal, and etc. due to the fact that such modification would have constituted
2 an alternative means for placing/recording the two dimensional barcode patterns on a
3 semiconductor device at different locations, and therefore would have constituted an obvious
4 design variation, failing to provide any unexpected results, well within the ordinary skill in the art.

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Response to Arguments

8 4. Applicant's arguments with respect to claims 1-20 have been considered but are moot in
9 view of the new ground(s) of rejection.

10 Merlin et al as modified by Shamir meets the limitation of the instant claimed invention, as
11 discussed above.

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Conclusion

14 5. Any inquiry concerning this communication or earlier communications from the examiner
15 should be directed to **Michael G. Lee** whose telephone number is (703) 305-3503. The examiner
16 can normally be reached between the hours of 6:30AM to 4:00PM Monday thru Thursday and
17 every other Friday (first Friday of the bi-week).

18 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,
19 Donald T. Hajec, can be reached on (703) 308-4075. The fax phone number for this Group is
20 (703)308-7722, (703)308-7724, or (703)308-7382.

Serial Number: 09/053,040

Art Unit: 2876

Applicant(s): Isao KUDO (235,462,01)

Representative: Norman N. Kunitz (20,586)

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1 Communications via Internet e-mail regarding this application, other than those under 35
2 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be
3 addressed to [michael.lee@uspto.gov].

4 *All Internet e-mail communications will be made of record in the application file. PTO*
5 *employees do not engage in Internet communications where there exists a possibility that*
6 *sensitive information could be identified or exchanged unless the record includes a properly*
7 *signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly*
8 *set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and*
9 *Trademark on February 25, 1997 at 1195 OG 89*

10 Any inquiry of a general nature or relating to the status of this application or proceeding
11 should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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MICHAEL G. LEE
Primary Examiner

Technology Center 2800
MARCH 17, 2000